

L7 ANSWER 9 OF 130 CAPLUS COPYRIGHT 2003 ACS

ACCESSION NUMBER: 2000:763706 CAPLUS

DOCUMENT NUMBER: 134:131904

TITLE: Investigation on cationic ring-opening polymerization

of 1,5,7,11-tetraoxaspiro [5,5] undecane in the presence of low molecular weight tetraols

AUTHOR(S): Guo, Y.-M.; Zou, Y.-F.; Pan, C.-Y.

CORPORATE SOURCE: Department of Polymer Science and Engineering,
University of Science and Technology of China, Anhui,
Hefei, 230026, Peop. Rep. China

SOURCE: Polymer (2000), Volume Date 2001, 42(4), 1337-1344

CODEN: POLMAG; ISSN: 0032-3861

PUBLISHER: Elsevier Science Ltd.

DOCUMENT TYPE: Journal

LANGUAGE: English

AB A four-armed tetraol, poly(1,5,7,11-tetraoxaspiro-[5,5]-undecane) tetraol (poly(TOSU)), was prep'd. by the cationic ring-opening polymn. of TOSU using BF₃.cntdot.OEt₂ as initiator in the presence of 6,6-bis(5-hydroxy-2-oxapentyl)-4,8-dioxaundecanediol-1,11 [BHDU] chain transfer agent. The structure of poly(TOSU) was characterized by ¹H, ¹³C NMR and FTIR spectra. GPC curves showed that the polymer has two fractions of high and low mol. wts.; however, each had a relatively narrow mol. wt. distribution. The mol. wt. of the polycarbonate tetraols was controlled by the molar ratio of TOSU consumed to initial BHDU. The mechanism of the ring opening polymn. and chain transfer is outlined.

IT 42954-97-2P, 1,5,7,11-Tetraoxaspiro-[5,5]-undecane homopolymer

RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(mechanism of cationic ring-opening polymn. of tetraoxaspiroundecane in presence of tetraol producing four-arm star polymers)

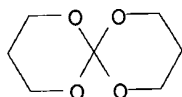
RN 42954-97-2 CAPLUS

CN 1,5,7,11-Tetraoxaspiro[5.5]undecane, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 24472-02-4

CMF C7 H12 O4



REFERENCE COUNT:

18

THERE ARE 18 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 56 OF 130 CAPLUS COPYRIGHT 2003 ACS

ACCESSION NUMBER: 1991:644063 CAPLUS
DOCUMENT NUMBER: 115:244063
TITLE: Photoresist compositions for fine patterning
INVENTOR(S): Oie, Masayuki; Kawada, Masaji; Yamada, Takamasa
PATENT ASSIGNEE(S): Nippon Zeon Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 9 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

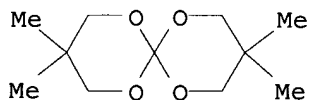
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 03107163	A2	19910507	JP 1989-243926	19890920

PRIORITY APPLN. INFO.: JP 1989-243926 19890920

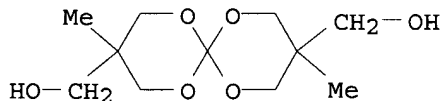
AB The title compns. contain: (a) alkali-sol. phenolic resins, and (b) spiroorthocarbonates. These compns. suitable for patterning using short-wavelength radiations provide excellent performance for fine patterning. Thus, a soln. contg. m-cresol-p-cresol novolak 100, 2,4-bis(trichloro methyl)-6-phenyl-s-triazine 2, I 23, and F-contg. surfactant 0.01 parts in Et 2-methoxypropionate was applied on Si wafer and prebaked to form a 1.0-.mu.m-thick resist layer. Exposure to far UV and development with 2.38% Me4NOH gave pos. high-contrast pattern with 0.94-.mu.m thickness.

IT 65849-85-6 100855-04-7
RL: USES (Uses)
(pos.-working photoresists contg., for short-wavelength radiations)

RN 65849-85-6 CAPLUS
CN 1,5,7,11-Tetraoxaspiro[5.5]undecane, 3,3,9,9-tetramethyl- (9CI) (CA INDEX NAME)



RN 100855-04-7 CAPLUS
CN 1,5,7,11-Tetraoxaspiro[5.5]undecane-3,9-dimethanol, 3,9-dimethyl- (9CI)
(CA INDEX NAME)



L7 ANSWER 32 OF 130 CAPLUS COPYRIGHT 2003 ACS

ACCESSION NUMBER: 1998:25409 CAPLUS
DOCUMENT NUMBER: 128:128758
TITLE: Polymerizable composition containing onium borate
initiator and its cured materials
INVENTOR(S): Toba, Yasumasa
PATENT ASSIGNEE(S): Toyo Ink Mfg. Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 13 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 10001507	A2	19980106	JP 1996-155066	19960617
PRIORITY APPLN. INFO.:			JP 1996-155066	19960617
OTHER SOURCE(S):			MARPAT 128:128758	

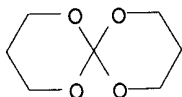
AB Title compn., useful for molded plastics, sealants, inks, coatings, resists, etc., contains (A) a polymn. initiator comprising [BYmZn]- (Y = F, Cl; Z = Ph substituted by .gtoreq.2 electron-withdrawing groups selected from F, cyano, NO₂, and CF₃; m = 0-3; n = 1-4; m + n = 4), (B) a sensitizer, and (C) acid-curable compd. The initiator shows high sensitivity and good soly. to resins and effectively generate acids, which induce hardening of (C). Thus, (A) diphenyliodonium tetrakis(pentafluorophenyl)borate 3, (B) anthracene 0.5, and (C) ERL 4221 (3,4-epoxycyclohexylmethyl 3,4-epoxycyclohexanecarboxylate) 100 parts were blended, coated on Al plate, and irradiated with UV to give tack-free cured film.

IT 42954-97-2P, 1,5,7,11-Tetraoxaspiro(5,5)undecane homopolymer
RL: IMF (Industrial manufacture); PREP (Preparation)
(polymerizable compns. contg. onium borate initiators, sensitizers, and acid-curable compds.)

RN 42954-97-2 CAPLUS
CN 1,5,7,11-Tetraoxaspiro[5.5]undecane, homopolymer (9CI) (CA INDEX NAME)

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CRN 24472-02-4
CMF C7 H12 O4



L7 ANSWER 33 OF 130 CAPLUS COPYRIGHT 2003 ACS

ACCESSION NUMBER: 1998:8664 CAPLUS
DOCUMENT NUMBER: 128:115380
TITLE: Sulfonium complex polymerization initiators, initiator compositions and polymerizable compositions containing the same, and their cured products
INVENTOR(S): Toba, Yasumasa
PATENT ASSIGNEE(S): Toyo Ink Mfg. Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 31 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 09328506	A2	19971222	JP 1996-146877	19960610
			JP 1996-146877	19960610

PRIORITY APPLN. INFO.:

OTHER SOURCE(S): MARPAT 128:115380

AB The sulfonium complex polymn. initiators comprise bis(2-hydroxyethyl) sulfonium cations and nonnucleophilic anions and their compns. contain sensitizers. The polymerizable compns. contain the initiator compns. and acid-curable or radically polymerizable compds. Application to inks, photoresists, adhesives, etc., is indicated. Thus, EtOAc soln. of 5.00 parts PhCH₂Br and 3.57 parts 2,2'-thiodiethanol were kept at room temp. for 5 days, filtered, and dried to give 4.59 parts bis(2-hydroxyethyl)benzylsulfonium bromide, 5.00 parts of which was treated with 3.32 parts Ag tetrafluoroborate in acetonitrile at room temp., filtered, pptd. with di-Et ether, and crystd. to give 3.25 parts bis(2-hydroxyethyl)benzylsulfonium tetrafluoroborate (I). A compn. comprising 3 parts I and 100 parts pentaerythritol triacrylate was applied onto Al plate and exposed to UV to give a tack-free coating without odor.

IT **42954-97-2P**, 1,5,7,11-Tetraoxaspiro(5,5)undecane homopolymer
 RL: IMF (Industrial manufacture); PREP (Preparation)
 (sulfonium complex polymn. initiators, its compns., and curable compns. thereof)

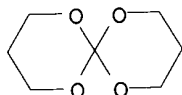
RN 42954-97-2 CAPLUS

CN 1,5,7,11-Tetraoxaspiro[5.5]undecane, homopolymer (9CI) (CA INDEX NAME)

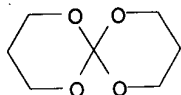
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CRN 24472-02-4

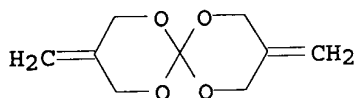
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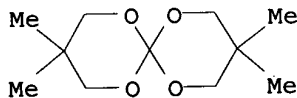
L7 ANSWER 65 OF 130 CAPLUS COPYRIGHT 2003 ACS
 ACCESSION NUMBER: 1990:497535 CAPLUS
 DOCUMENT NUMBER: 113:97535
 TITLE: A new approach to spiroorthocarbonates and new orthocarbonic acid derivatives
 AUTHOR(S): Mues, Peter; Buysch, Hans Josef
 CORPORATE SOURCE: Zent. Forsch., Bayer A.-G., Krefeld-Uerdingen, D-4150, Germany
 SOURCE: Synthesis (1990), (3), 249-52
 CODEN: SYNTBF; ISSN: 0039-7881
 DOCUMENT TYPE: Journal
 LANGUAGE: German
 OTHER SOURCE(S): CASREACT 113:97535
 AB Simple processes have been developed, which give in good or excellent yields new diphenoxyalkanedioldioxymethanes, sym. and unsym. spiroorthocarbonates, spirocyclic orthothiocarbamic acid esters, and acetals of urea by successive or simultaneous substitution of chloro and phenoxy groups contained in dichlorodiphenoxymethane.
 IT 24472-02-4P, 1,5,7,11-Tetraoxaspiro[5.5]undecane
 55849-58-6P 65849-85-6P 96837-21-7P
 128773-26-2P 128773-27-3P
 RL: SPN (Synthetic preparation); PREP (Preparation) (prepn. of)
 RN 24472-02-4 CAPLUS
 CN 1,5,7,11-Tetraoxaspiro[5.5]undecane (9CI) (CA INDEX NAME)



RN 55849-58-6 CAPLUS
 CN 1,5,7,11-Tetraoxaspiro[5.5]undecane, 3,9-bis(methylene)- (9CI) (CA INDEX NAME)

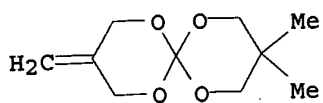


RN 65849-85-6 CAPLUS
 CN 1,5,7,11-Tetraoxaspiro[5.5]undecane, 3,3,9,9-tetramethyl- (9CI) (CA INDEX NAME)

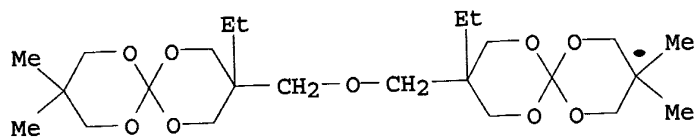


RN 96837-21-7 CAPLUS
 CN 1,5,7,11-Tetraoxaspiro[5.5]undecane, 3,3-dimethyl-9-methylene- (9CI) (CA INDEX NAME)

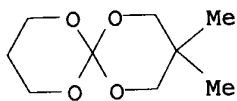
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RN 128773-26-2 CAPLUS
 CN 1,5,7,11-Tetraoxaspiro[5.5]undecane, 3,3'-[oxybis(methylene)]bis[3-ethyl-9,9-dimethyl- (9CI) (CA INDEX NAME)



RN 128773-27-3 CAPLUS
 CN 1,5,7,11-Tetraoxaspiro[5.5]undecane, 3,3'-bis(ethyl)-bis(3,3-dimethyl- (9CI) (CA INDEX NAME)



L7 ANSWER 29 OF 130 CAPLUS COPYRIGHT 2003 ACS
 ACCESSION NUMBER: 1998:259490 CAPLUS
 DOCUMENT NUMBER: 129:19721
 TITLE: Adhesives for catheter tubes to prep. catheters
 INVENTOR(S): Endo, Takeshi; Mera, Hiroshi
 PATENT ASSIGNEE(S): Terumo Corp., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 8 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 10108906	A2	19980428	JP 1996-267497	19961008
			JP 1996-267497	19961008

PRIORITY APPLN. INFO.:
 AB In prepg. catheters from catheter tubes using e.g. UV hardenable adhesives, the adhesives show vol. shrinkage of -3 to 8% during hardening and have viscosity .ltoreq. 10 P prior to hardening to improve the prepd. catheter quality.
 IT 207603-37-0
 RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
 (adhesives for catheter tubes to prep. catheters)
 RN 207603-37-0 CAPLUS
 CN 1,5,7,11-Tetraoxaspiro[5.5]undecane, 3-methyl- (9CI) (CA INDEX NAME)

